ARIZONA
Overview of Ground Water Resources
Availability of adequate and potable water supplies in Arizona has had a great effect on the location of cities and farmlands. Because evapotranspira-tion greatly exceeds rainfall, agriculture depends almost entirely on irrigation. However, the amount of surface water available is not sufficient to meet the increasing demands. Therefore, ground water reservoirs are of prime importance as a source of water. In 1980, about 58 percent of the total water supply in the state came from its ground water reservoirs, creating an annual overdraft of 2.5 million acre-feet.

The principal use of ground water is for irrigation of crops, although cnunicipal and industrial uses are increasing at a rapid rate, reflecting the 5un Belt boom. Also, more industrial enterprises are being developed in the state.

Arizona's principal aquifers consist of unconsolidated alluvium, consolidated sedimentary rocks, and crystalline igneous and metamorphic rocks. \rizona is divided into three water provinces: the Colorado Plateau uplands province in the northern part of the state, the Basin and Range lowlands province in the southern part of the state, and the Central highlands prov-nce, which is transitional between the other two provinces. Table 3.1 de-scribes Arizona's aquifers according to the water province in which they)ccur from youngest to oldest.

Ground Water Quality Issues
Major sources of ground water contamination in the state are pesticides, :ertilizers, irrigation return flows, sanitary landfills, industrial solvents, nining activities, injection wells, surface impoundments, and leaking un-lerground storage tanks and pipelines. Other ground water pollution prob-ems are disposal of waste waters, disposal of waste treatment by-product, ;alt water intrusion, and spills. Recently, the Arizona Department of Health Services established action levels for 27 volatile organic compounds VOC) and 3 pesticides. These 30 chemicals, now with action levels, are hose particularly relevant to ground water quality in Arizona. Twelve ad-litional VOCs are currently under study for action level designation. The najor chemical of concern currently is trichloroethylene (TCE). The action evel for TCE is 5 parts per billion (ppb).